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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,746	11/25/2003	Donald P. Orofino II	MWS-027	7299
74321 7590 12/24/2009 LAHIVE & COCKFIELD, LLP/THE MATHWORKS FLOOR 30, SUITE 3000 One Post Office Square Boston, MA 02109-2127				
EXAMINER				
FREID, RUSSELL WARREN				
ART UNIT		PAPER NUMBER		
2128				
MAIL DATE		DELIVERY MODE		
12/24/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/722,746

Applicant(s)

OROFINO ET AL.

Examiner

Russell Frejnd

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40,43,46-51,68-74 and 85-88 is/are allowed.
- 6) ☒ Claim(s) 1-4,7,14,18,24,28,30,31,34,44,52-55,57,60,63,75,76,80 and 81 is/are rejected.
- 7) ☒ Claim(s) See Continuation Sheet is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11-25-03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
Paper No(s)/Mail Date: _____
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims objected to are 5,6,8-13,15-17,19-23,25-27,29,32,33,35-39,41,42,45,56,58,59,61,62,64-67,77-79,82-84,89.

Examination of Application 11/722,746

1. Claims 1-89 of application 11/722,746, filed on 25-November-2003, are presented for examination.

Claim Rejections under 35 U.S.C. § 112, 2nd Paragraph

2. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase [line 5] "being free of structure and operation for operating on the second signal type" is vague.

Claim Rejections under 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 3.1 Claims 1-4, 7, 14, 18, 24, 28, 30, 31, 34, 44, 52-55, 57, 60, 63, 75, 76, 80 and 81 are rejected under 35 U.S.C. 102(b) as being anticipated by the article authored by Taniar, entitled *Inheritance and Parallelization: Emerging Object-Oriented and Parallel Technologies for High Performance Database Systems*, which discloses:

(Claims) 1, 24, 34, 52, 60, 75 and 80: providing a first signal type ("second signal" in claim 80) for a signal ("parent signal" in claim 75, "first signal" in claim 80) in the graphical modeling environment [super-class]; and defining a second signal type that inherits from the first signal

type [sub-class][p. 639, col. 2, par. 3].

2-4, and 31: wherein said first signal type is associated with a block in the graphical modeling environment [Fig. 1].

7: wherein at least one of a signal of said first signal type and a signal of said second signal type are visually depicted in the graphical modeling environment [Fig. 1].

14, 54, and 55: wherein the first signal type and the second signal type each have one or more attributes [p. 639, col. 2, par. 3, see "properties"].

18, 44, and 57: wherein each signal type comprises a class p. 639, col. 2, par. 3].

28: extending the second object class to include one or more features distinct from features of the first object class in the graphical modeling environment [p. 639, col. 2, par. 3, see "specialized"].

30 and 63: providing two or more base object classes, each of the base object classes representing a signal type [multiple super-classes is deemed inherent to the disclosure]; defining a first object sub-class that inherits from at least two of the base object classes; and instantiating an object of the first object sub-class in representing a signal in the graphical modeling environment [all at p. 639, col. 2, par. 3].

53: saving at least one of the first and second signal types in a memory location accessible to the graphical modeling environment [p. 640, col. 1, par. 3, deemed inherent to the operation of a processor].

76 and 81: wherein a second signal ("signal" in claim 81) in the model in the graphical modeling environment represents the parent signal type ("second signal" type in claim 81)[p. 639, col. 2, par. 3, see "super-class"].

Claim Objections

4. Claims 5, 6, 8-13, 15-17, 19-23, 25-27, 29, 32, 33, 35-39, 41, 42, 45, 56, 58, 59, 61, 62, 64-67, 77-79, 82-84 and 89 are objected to as being dependent upon a rejected base claim, but would be allowable, pending resolution of any rejections noted above, if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowed Claims

5. Claims 40, 43, 46-51, 68-74, and 85-88 are deemed allowable over the prior art of record at this time, pending resolution of any rejections noted above, because the prior art does not specifically claim:

(Independent Claim) 40: providing a first block that outputs an instance of a first object class that represents a first signal type, propagating the instance of the first object class from the first block to a second block in the graphical modeling environment, the second block processing a feature of the first object class; and propagating from an output of the second block an instance

of a second object class that inherits from the first object class, wherein the instance of the second object class represents a second signal type in the graphical modeling environment.

68: providing a first block that outputs an instance of a first object class that represents a first signal type, communicating the instance of the first object class from the first block to a second block in the graphical modeling environment, the second block processing a feature of the first object class; and in the second block, outputting an instance of a second object class that inherits from the first object class, wherein the instance of the second object class represents a second signal type in the graphical modeling environment.

Remarks Pertaining to 35 U.S.C. § 101

6. In regard to claims 1-51, 75-79, and 89, and in view of the memorandum from Andrew Hirshfeld dated 24-August-2009, a § 101 process must: (1) be tied to another statutory class (such as a particular machine or machine implemented apparatus), or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under § 101, and is therefore non-statutory subject matter. It is noted that, using the broadest reasonable interpretation of the claim, a machine or transformation can be either explicitly or inherently present in the claim, in order to qualify as a § 101 statutory process. It is only if no machine or transformation is present, either explicitly or inherently, that the claim should be rejected as being directed to non-statutory subject matter, and therefore does not qualify as a statutory process.

Specifically in regard to independent claims 1, 24, 30, 34, 40, and 75, at least the step for "providing a signal type in a graphical modeling environment" inherently requires the use of a

machine, as it cannot be reasonably accomplished without the use of a computer. Furthermore, the specification states that, "an illustrative embodiment of the present invention" includes a computer system including an electronic device [p. 14, ln. 6]. For at least this reason, claims 1-51, 75-79, and 89 are determined to be tied to another statutory class, and therefore qualify as a statutory process.

Response Guidelines

7. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02, 710.02(b)).

7.1 Any response to the Examiner in regard to this non-final action should be

directed to: Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, **or** the examiner's supervisor, Kamini Shah, telephone number (571) 272-2279. Inquires of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist (571) 272-2100.

mailed to: Commissioner of Patents and Trademarks
P.O. Box 1450, Alexandria, VA 22313-1450

or faxed to: (571) 273-8300

Hand-delivered responses should be brought to the Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA, 22314.

/Russell Frejd/
Primary Examiner AU 2128